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## **Water Resources LICENCE TO**

### **IMPOUND**

## **WATER**

Water Act 2003  
Environment Act 1995  
Water Resources Act 1991 as amended  
by the Water Act 2003  
Water Resources (Abstraction and  
Impounding) Regulations 2006  
Natural Resources Body for Wales (Functions)  
Order 2012

# IMPORTANT NOTES

## Need for safekeeping

This licence is an important document and you should keep it safe, probably with the deeds to the land.

The impounding works may also be conditional on, or otherwise involve, you entering into a related agreement with Natural Resources Wales. This may be registered and will bind the land. It will therefore affect not only you, as the licence holder, but also your successors in title to the land. This licence and any such Agreement should therefore be disclosed on any change of title or occupation.

## Scope of this licence

This licence has effect only for the purposes of Part II of the Water Resources Act 1991 as amended by the Water Act 2003. In granting this licence, and in considering any drawings submitted, you should assume that Natural Resources Wales has taken into account only considerations relevant to the conservation and proper use of water resources in the area. Grant of this licence does not imply that Natural Resources Wales has approved the details of construction of the impounding works, including whether the proposed construction is adequate or safe. The licence holder is entirely responsible for ensuring compliance with all other requirements. Grant of this licence does not in any way suggest that these have been fulfilled.

## Changes to the impounding works or revocation of this licence

If you want to alter the impounding works and/or the way you operate them, you will need to vary the terms of the licence (and, if applicable, the related agreement). If you want to revoke this licence, you may be required to satisfy certain conditions that Natural Resources Wales may specify for the removal of the works. Contact Natural Resources Wales at the address at the bottom of the front page of this licence if you want to vary or revoke this licence

## Transfer of this licence

If you need to pass this licence to someone else, you must contact Natural Resources Wales and obtain the appropriate application forms. The licence holder remains responsible for compliance with the terms of the licence until it has been transferred.

## Death or bankruptcy of the licence holder

If a licence has been 'vested' in you, as a result of the death or bankruptcy of the licence holder, please contact Natural Resources Wales in writing, telling us the licence number(s) and the date that the licence vested in you as a personal representative or trustee of the licence holder. This is necessary in order to enable you to subsequently transfer the licence.

'Vesting' is the transfer of responsibility and ownership of a licence when an existing licence holder is no longer able to hold the licence either through death or bankruptcy.

You do not have to complete a form, but you must notify us in writing within 15 months of the date of vesting, giving the full names of all personal representatives or trustees and a contact address.

## Other requirements for impoundments

Depending on circumstances, you may also have to comply with other legal requirements, i.e. apart from obtaining this licence, before carrying out or operating the impoundment. These may include:

- obtaining consent from Natural Resources Wales under section 109 Water Resources Act 1991 (relating to structures on main rivers);
- obtaining consent under section 23 Land Drainage Act 1991 from Natural Resources Wales or the relevant internal drainage board (relating to obstructions in watercourses);
- obtaining planning permission from the planning authority;
- complying with requirements of the Reservoirs Act 1975 (in relation to safety of larger raised reservoirs). Natural Resources Wales' predecessor the Environment Agency, became the regulatory body on 1 October 2004.
- obtaining consent from the owner of the other bank of the watercourse to the proposed impoundment;

- not contravening pollution control provisions of the Water Resources Act 1991, particularly in relation to allowing matter to be carried away in suspension when sluices etc. are opened;
- complying with the provisions of the Salmon and Freshwater Fisheries Act 1975 relating to the passage of fish.

Some of these matters are under the control of Natural Resources Wales, but for administrative and legal reasons are kept separate from the issue of this licence. If you require information or assistance about them, contact Natural Resources Wales, and you will be directed to the right person to help you.

For advice about planning permission, contact the appropriate authority. The planning authority will normally be the district, borough or city council.

## Offences

This impounding licence authorises you, the licence holder, to obstruct or impede the flow of a specified inland water at a specified point by means of impounding works.

"Impounding works" means either, any dam, weir or other works by which water may be impounded; or, any works for diverting the flow of waters in connection with the construction or alteration of such dam, weir or other works.

Under the Water Resources Act 1991 it is an offence to construct or alter, or cause or permit any other person to construct or alter, any impounding works in inland waters or cause or permit the flow of any inland waters to be impeded or obstructed at any point by means of impounding works unless:

- an impounding licence is in force;
- the flow of the inland waters is not obstructed or impeded except to the extent and in the manner authorised by a licence;
- any other requirements of the licence, whether as to provision of compensation water or otherwise, are complied with.

It is an offence knowingly to make false statements for the purpose of obtaining a licence.

It may be an offence not to comply with the other legal requirements mentioned above for details, check with Natural Resources Wales or the authority concerned.

## Right of appeal

If you are dissatisfied with our decision on your licence application, you may appeal.

If you are in England, you should write to the Secretary of State for Environment, Food and Rural Affairs, care of The Planning Inspectorate at:

Room 4/19 Eagle Wing, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN.  
The telephone number is 0117 372 8235.

If you are in Wales, you should write to Welsh Government care of The Planning Inspectorate at:

Crown Buildings, Cathays Park, Cardiff, CF10 3NQ.  
The telephone number is 029 2082 3857.

You must serve notice of appeal within 28 days of the date of receipt of this licence (although the Secretary and Welsh Government have power to allow a longer period for serving notice of appeal). See Water Resources Act 1991, section 43.

## Disclosure of Information

Information about this licence is available on the public Register held by Natural Resources Wales. Members of the public are also entitled to ask us for other "environmental information" it holds, including any activities likely to affect "the state of any water" or any "activities or other measures designed to protect it". That would include the information additional to the licence document e.g. any related agreement. In certain restricted circumstances it is possible to claim that information should be kept confidential. If you require more information about keeping information off the public register because it is confidential, please contact us by writing to the address shown at the bottom of the front page of the licence within 28 days of receiving this licence.



## LICENCE TO IMPOUND WATER

The Natural Resources Body for Wales (hereafter referred to as “NRW”) grants this licence to:-

Sylvia Jones	Harri Mostyn Jones	(“the Licence Holder”)
18 Windsor Drive	Bryniog Isaf	
Old Colwyn	Melin-y-Coed	
Conwy	Llanrwst	
LL29 8BB	LL26 0TR	

Trading as WM Jones & Co

This licence authorises the Licence Holder to obstruct or impede the flow of the inland water described in the Schedule of Conditions (to extent and manner authorised by those conditions) to this licence and subject to the provisions of that Schedule.

The licence commences from the effective date shown below and shall remain in force until revoked.

Signed:



Date of issue.....06 June 2026

Date effective.....06 June 2026

Asley Lansdown  
Permitting Team Leader  
Permitting Service  
Natural Resources Wales  
Welsh Government Offices  
Cathays Park  
King Edward VII Avenue  
Cardiff  
CF10 3NQ

This licence should be kept safe and its existence disclosed on any sale of the land and the impounding works to which it relates.

Note: References to "the map" are to the map which forms part of this licence.  
References to “NRW” are to the Natural Resources Body for Wales or any successor body.

## SCHEDULE OF CONDITIONS

### 1. NAME OF INLAND WATER TO BE IMPOUNDED

- 1.1 Inland water (river) known as the Afon Gennog at Blaen-y-Nant, Llanberis, Gwynedd.

### 2. POINT OF IMPOUNDMENT

- 2.1 At National Grid Reference SH 62109 56648 marked 'Point A' on the map.

### 3. MANNER AND EXTENT OF IMPOUNDMENT

- 3.1 Intake works consisting of an existing concrete weir, Coanda screen with spacing no greater than 2 millimetres, collection chamber, gravity feed rated HPPE penstock pipe with an external diameter of 355 millimetres, removable stainless steel plate and v-notch, fish pool, Turgo turbine and associated ancillary works, in accordance with the specifications, plans and drawings:

- Afon Gennog Weir Front Elevation, Levels and Calculations, 130817MP02, Version 3
- Afon Gennog Weir Positioning, 130817MP03, Version 3
- Afon Gennog Weir Overall Dimensions, 130817MP04, Version 3
- Afon Gennog : Weir GA and Nomenclature, 130817MP05, Version 3
- Afon Gennog Weir Side Elevation and Baseslab Section, 130817MP06, Version 3
- Afon Gennog Weir Section Views B-B and C-C, 130817MP07, Version 3
- Afon Gennog Weir Section View C-C and Right End Elevation, 130817MP08, Version 3

dated 17/08/2013, copies of which are appended to this licence, or such minor amendments to those documents that are accepted in writing by NRW prior to the date of commencement of construction.

### 4. FURTHER CONDITIONS

- 4.1 For the purpose of this licence, references to 'intake works' shall mean all works consisting of amendments to an existing concrete weir, Coanda screen with spacing no greater than 2 millimetres, collection chamber, gravity feed HPPE penstock pipe with an external diameter of 355 millimetres, removable stainless steel plate and v-notch, fish pool, Turgo turbine and associated ancillary works.
- 4.2 The Licence Holder shall ensure that during construction works, any subsequent maintenance works to the intake works, and when abstraction for the purpose of power production is not taking place, the flow in the Afon Gennog is allowed to pass downstream unchanged in quantity and quality at all times.
- 4.3 The Licence Holder shall construct, operate and maintain the intake works in

accordance with the specifications, plans and drawings referred to in Condition 3.1 of this licence and keep them free from leakage and obstruction at all times.

- 4.4 The intake works authorised by this licence shall not be carried out in the watercourse between 17<sup>th</sup> October and 15<sup>th</sup> May in any year.
- 4.5 Prior to the completion of the works authorised by this licence, the Licence Holder shall construct a plunge pool, with a minimum depth of 300 millimetres, across the width of the watercourse immediately downstream of the intake works specified in condition 3.1 to ensure the safe downstream passage of fish.

## ADDITIONAL INFORMATION

Note: the following information is provided for information only. It does not form part of the licence.

### REASONS FOR CONDITIONS

Conditions 4.1 and 4.3: to ensure the intake works are constructed, operated and maintained in accordance with the plans, drawings and specifications agreed by NRW during the determination of this licence.

Conditions 4.2: to ensure a flow is maintained in the watercourse in order to maintain the riverine habitat for the conservation of the flora and fauna of the watercourse, and to ensure that the water environment is not impacted during construction and subsequent maintenance.

Condition 4.4: to avoid damage to fish during vulnerable life stages such as spawning, migration, emergence and early maturation.

Condition 4.5: to avoid damage to downstream migrating fish.

### IMPORTANT NOTES

This impoundment licence facilitates the abstraction of water for a hydropower scheme authorised under licence serial number WA/065/0016/0021.

For the purposes of Condition 3.1 the Licence Holder shall contact:

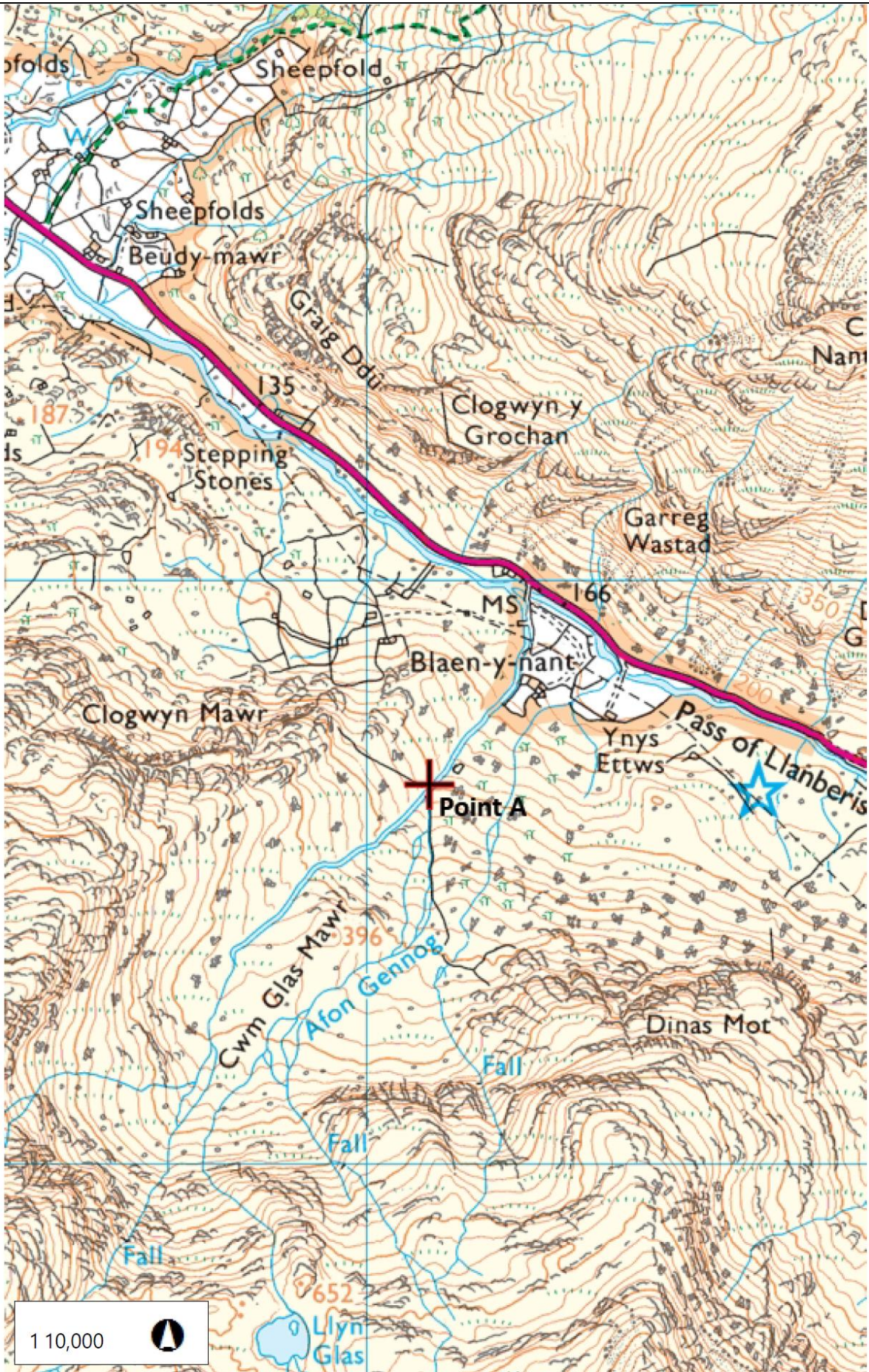
North West People and Places Team  
Natural Resources Wales  
Maes y Ffynnon  
Penrhosgarnedd  
Bangor  
Gwynedd  
LL57 2DW

Tel: 0300 065 3000

Email: [NorthWestPeopleandPlacesTeam@cyfoethnaturiolcymru.gov.uk](mailto:NorthWestPeopleandPlacesTeam@cyfoethnaturiolcymru.gov.uk)

### Licence history

Licence Serial Number	Issue and Effective Date	Summary of Changes
WA/065/0016/0016	20/12/2013	Impoundment licence originally issued to authorise a new HEP scheme on the Afon Gennog.
WA/065/0016/0016	-	Impoundment licence lapsed on 29/01/2024 due to a failed vesting
WA/065/0016/0022	04/06/2026	Impoundment licence issued to facilitate existing HEP scheme on the Afon Gennog



MAP ACCOMPANYING LICENCE NUMBER / MAP I GYFEILIO TRWYDDED  
RHIF

WA/065/0016/0022

Scale I Graddfa 1:10,000

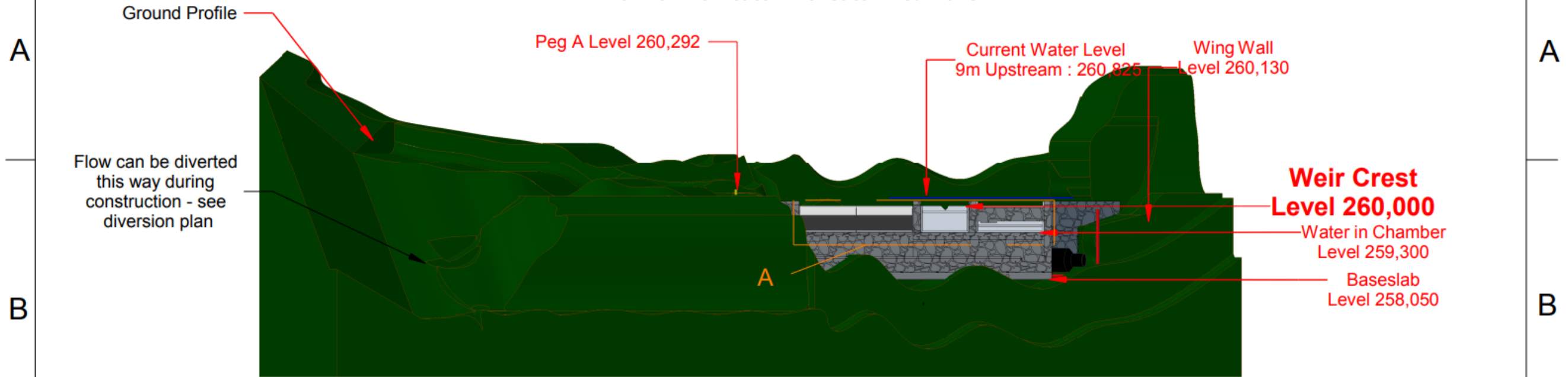
© CNC/NRW All Rights Reserved. Contains Ordnance Survey Data. Ordnance Survey Licence number AC0000849444.  
© CNC/NRW Cedwir Pob Hawl. Yn cynnwys data Arolwg Ordnans. Rhif trwydded Arolwg Ordnans AC0000849444.



1 2 3 4 5 6

### Wyn Jones Afon Gennog Weir Front Elevation, Levels and Calculations

View from Downstream with Stream Bed Profile



Calculation of flow over V-notch weir.  
 Angle = 90 degrees  
 Discharge coefficient Cd = 0.59  
 V-notch depth H = 0.160m

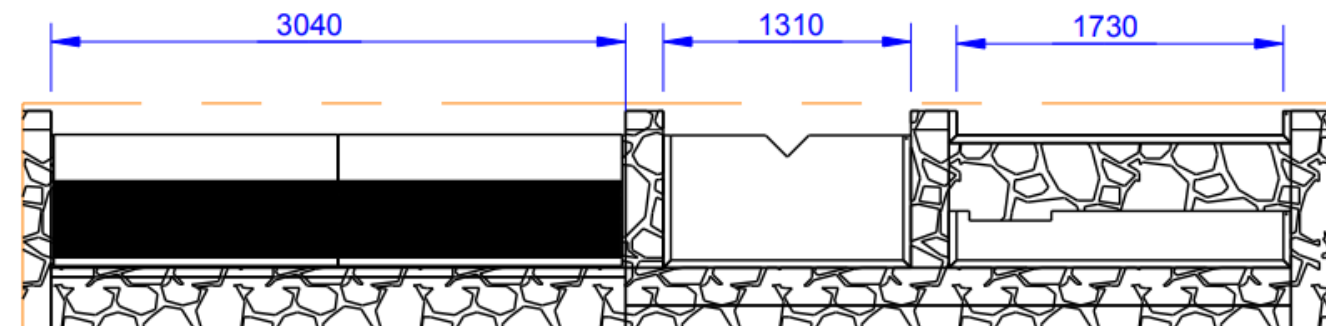
$$Q = \frac{8}{15} C_d \sqrt{2g} \tan \frac{\theta}{2} \times H^{\frac{5}{2}}$$

= 0.59 \* 2.362 \* tan(45) \* 0.160<sup>2.5</sup>  
 = 0.001427 m<sup>3</sup> / sec  
 = 14.27 lps

Calculation of impoundment capacity  
 Area of upstream face of weir = 9 sqm  
 Reach of impoundment = 8m  
 Volume (assuming constant gradient) = 9 x 8 x 0.5 = 36 cubic m

Detail A, Scale 1 : 50 (Streambed profile omitted for clarity)

Total Crest Width 3040 + 1310 + 1730 = 6080  
 Screen Width 3040. Take = 3040/6080 = 50%

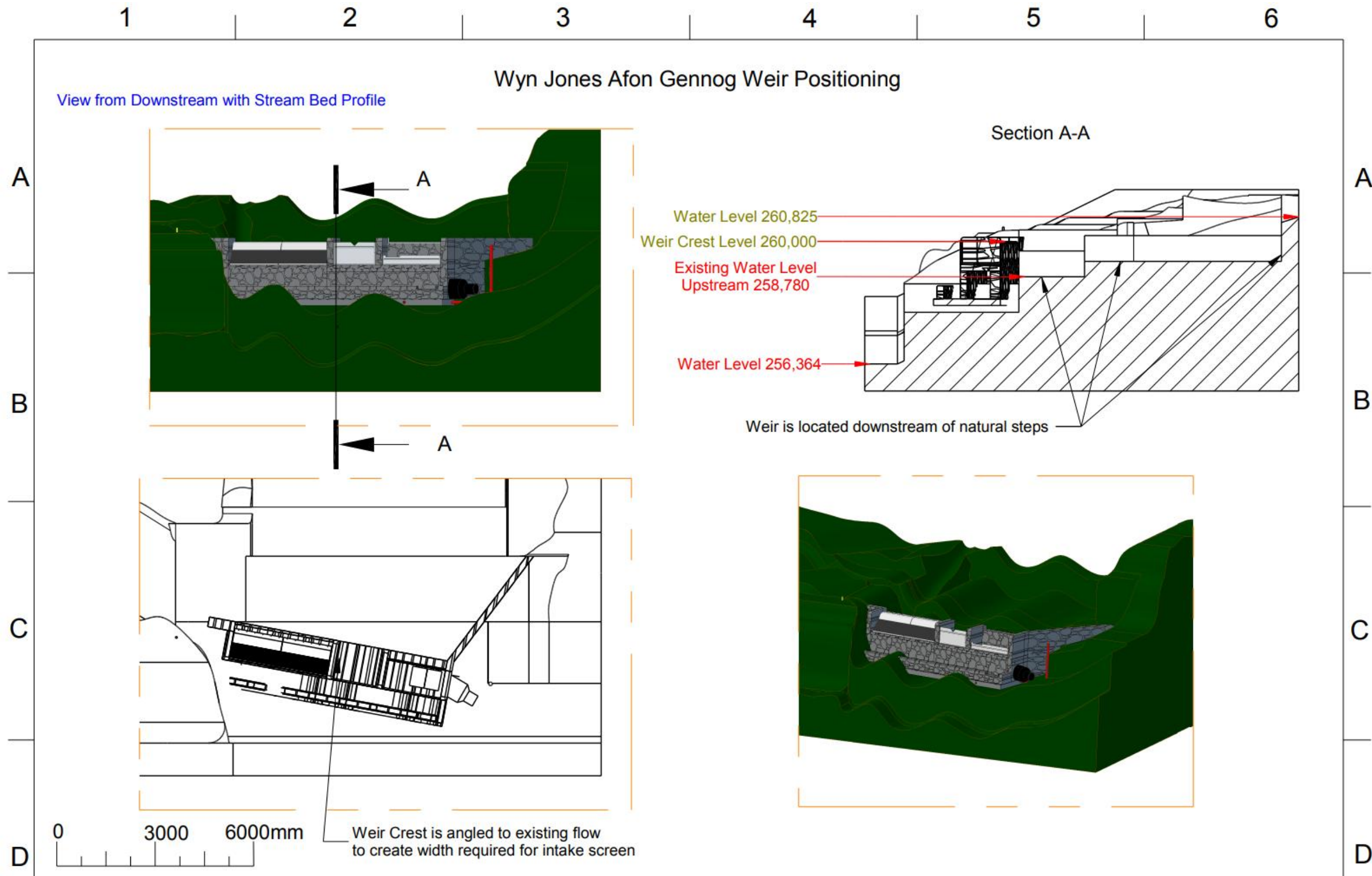


All dimensions in mm. All levels relative to Newlyn

A B C D

<p>Client : <b>Wyn Jones</b>                  Address : Bryniog-Isa, Melin Y Coed                  Llanwrst, LL26 0TR                  Drawn By : MJP</p>	<p>Date : 17/08/13                  Scale : 1 : 150                  Drawing No : 130817MP02                  Version : 3</p>	<p>Revision Details                  v2 : Mortared rock construction                  v3 : Take fixed at 50%</p>	<p><b>Greenearth Hydro</b></p>	<p>Greenearth Hydro Limited                  Bronafon, Bridge Street, Llanfyllin, Powys, SY22 5AU                  Tel: 01691 648 378 <a href="http://www.greenearthhydro.co.uk">www.greenearthhydro.co.uk</a>                  Company Registration Number 7417466                  MCS Hydro Transition Installer 123</p>
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1 2 3 4 5 6



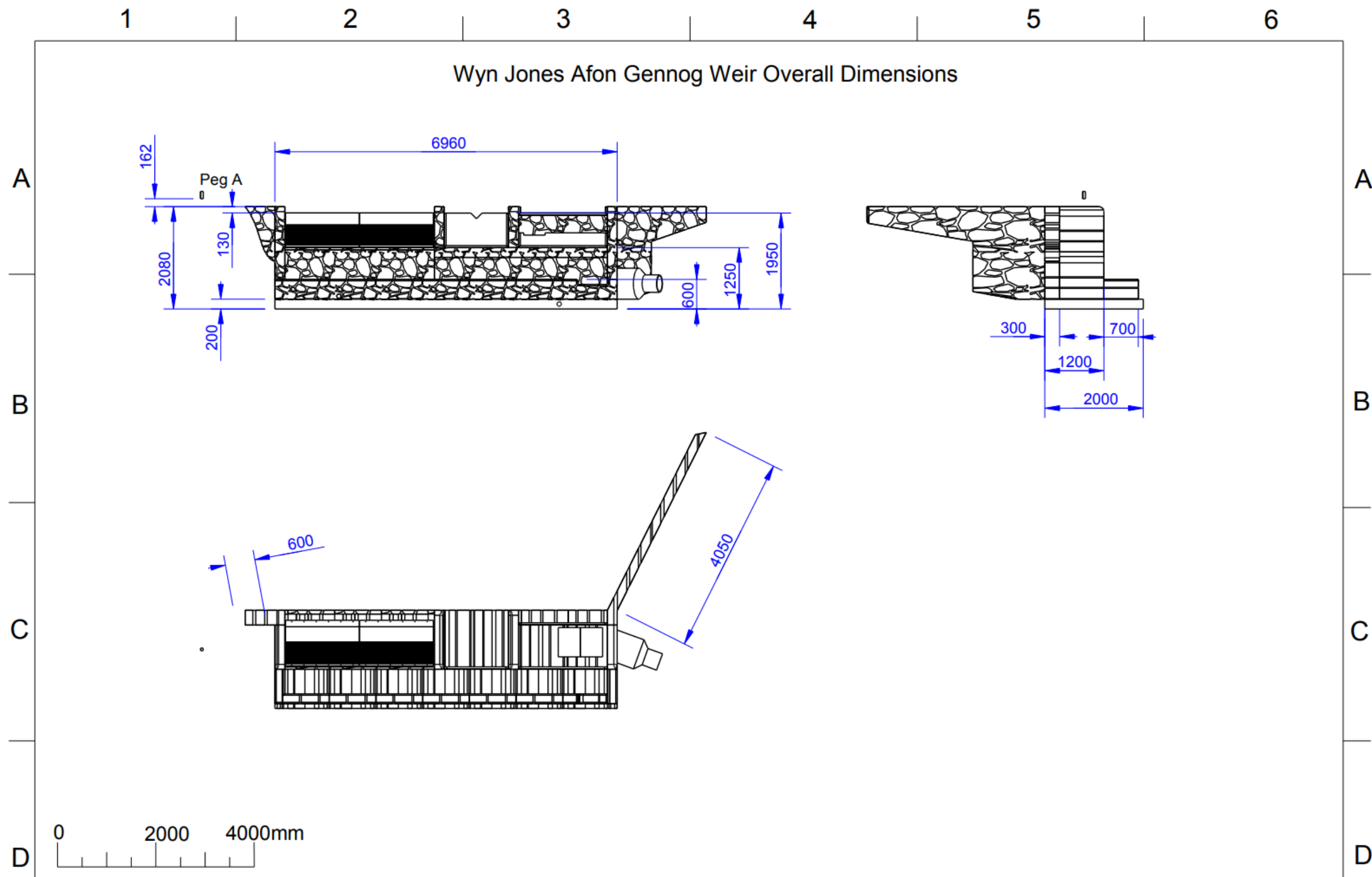
Client : **Wyn Jones**  
 Address : Bryniog-Isa, Melin Y Coed  
 Llanwrst, LL26 0TR  
 Drawn By : MJP


Date : 17/08/13  
 Scale : 1 : 150  
 Drawing No : 130817MP03  
 Version : 3

Revision Details  
 v2 : Mortared Rock Construction  
 v3 : Take fixed at 50%

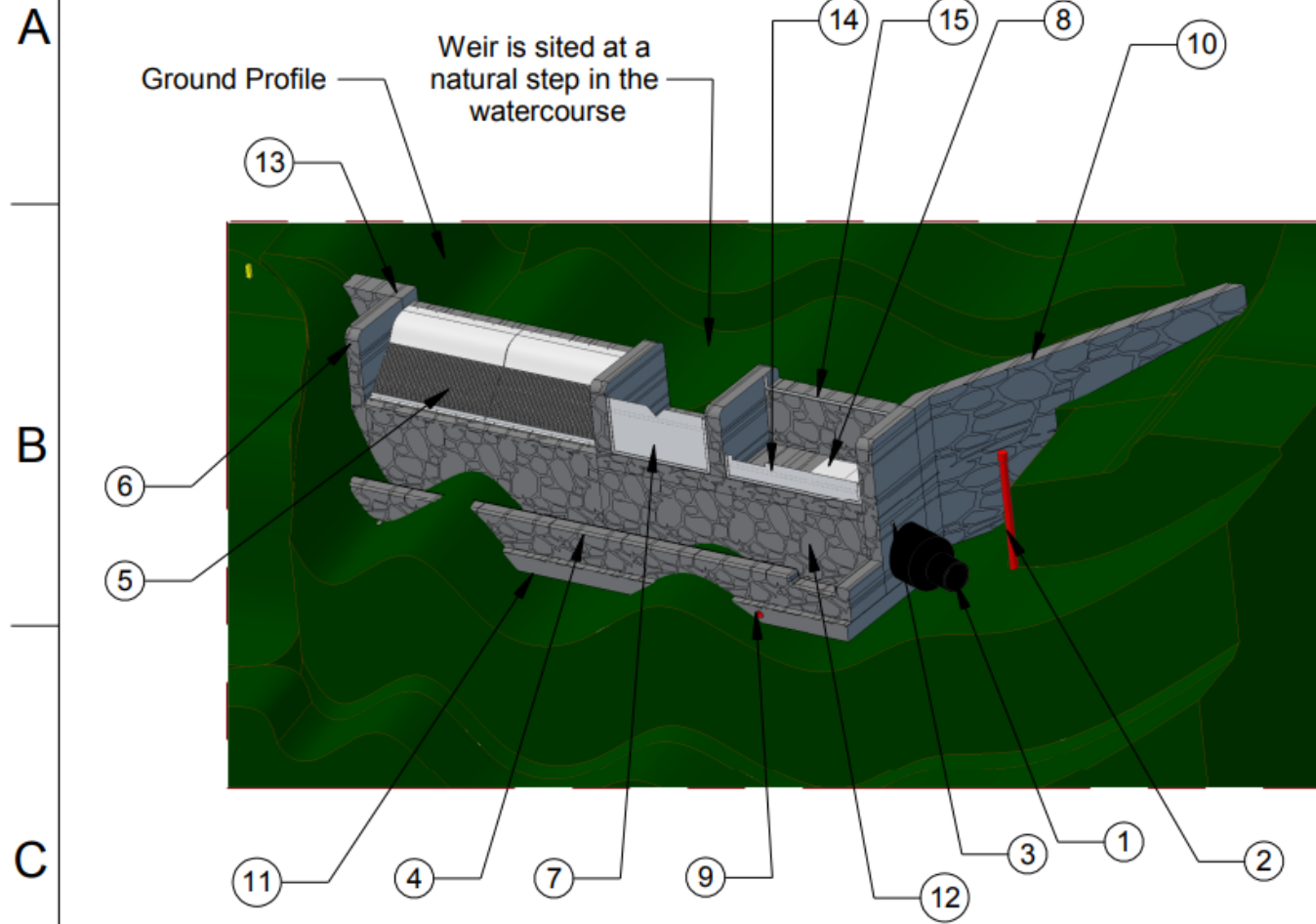


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 Bronafon, Bridge Street, Llanfyllin, Powys, SY22 5AU  
 Tel: 01691 648 378 [www.greeneearthhydro.co.uk](http://www.greeneearthhydro.co.uk)  
 Company Registration Number 7417466  
 MCS Hydro Transition Installer 123



<p>Client : <b>Wyn Jones</b>          Address : Bryniog-Isa, Melin Y Coed          Llanwrst, LL26 0TR          Drawn By : MJP</p>	<p>Date : 17/08/13          Scale : 1 : 100          Drawing No : 130817MP04          Version : 3</p>	<p>Revision Details          v2 : Mortared Rock Construction          v3 : Take fixed at 50%</p>	<p><b>Greenearth Hydro</b> </p>	<p>Greenearth Hydro Limited          Bronafon, Bridge Street, Llanfyllin, Powys, SY22 5AU          Tel: 01691 648 378 <a href="http://www.greenearthhydro.co.uk">www.greenearthhydro.co.uk</a>          Company Registration Number 7417466          MCS Hydro Transition Installer 123</p>
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### Wyn Jones Afon Gennog : Weir GA and Nomenclature



1. Penstock. 355 mm diameter SDR 33 5 bar rated HPPE. 630mm to 355mm reducer acts as bellmouth at inlet.
2. Riser pipe from chamber, for Head Sensor
3. 50mm diameter Breather hole: Construction must ensure this is clear of final ground level.
4. Fishpool immediately downstream of weir, 300mm deep.
5. Intake Screen. Type C Coanda Screen, 2mm spacings
6. Note: Side and middle walls are 130mm higher than weir crest
7. 90 degree V-notch weir. Designed to allow compensation flow of 14lps. V-Notch 160mm deep. Made from Stainless Steel plate, it can be removed to create a bypass of up to 1700 lps for maintenance.
8. Manhole cover: Allows access to the chamber for pigging and maintenance
9. Drain-down pipes: These allow drainage of the chamber and fish pools for maintenance
10. Wing wall extends upstream to tie into existing rock
11. Reinforced concrete base slab
12. Collection chamber
13. Wing wall
14. Stainless Steel Plate creates a fish pool 300mm deep in this section. Plate can be removed to drain the area when accessing the manhole
15. A plate can be inserted in this section to prevent flow entering the access area during pipe cleaning ('pigging') and other maintenance operations.



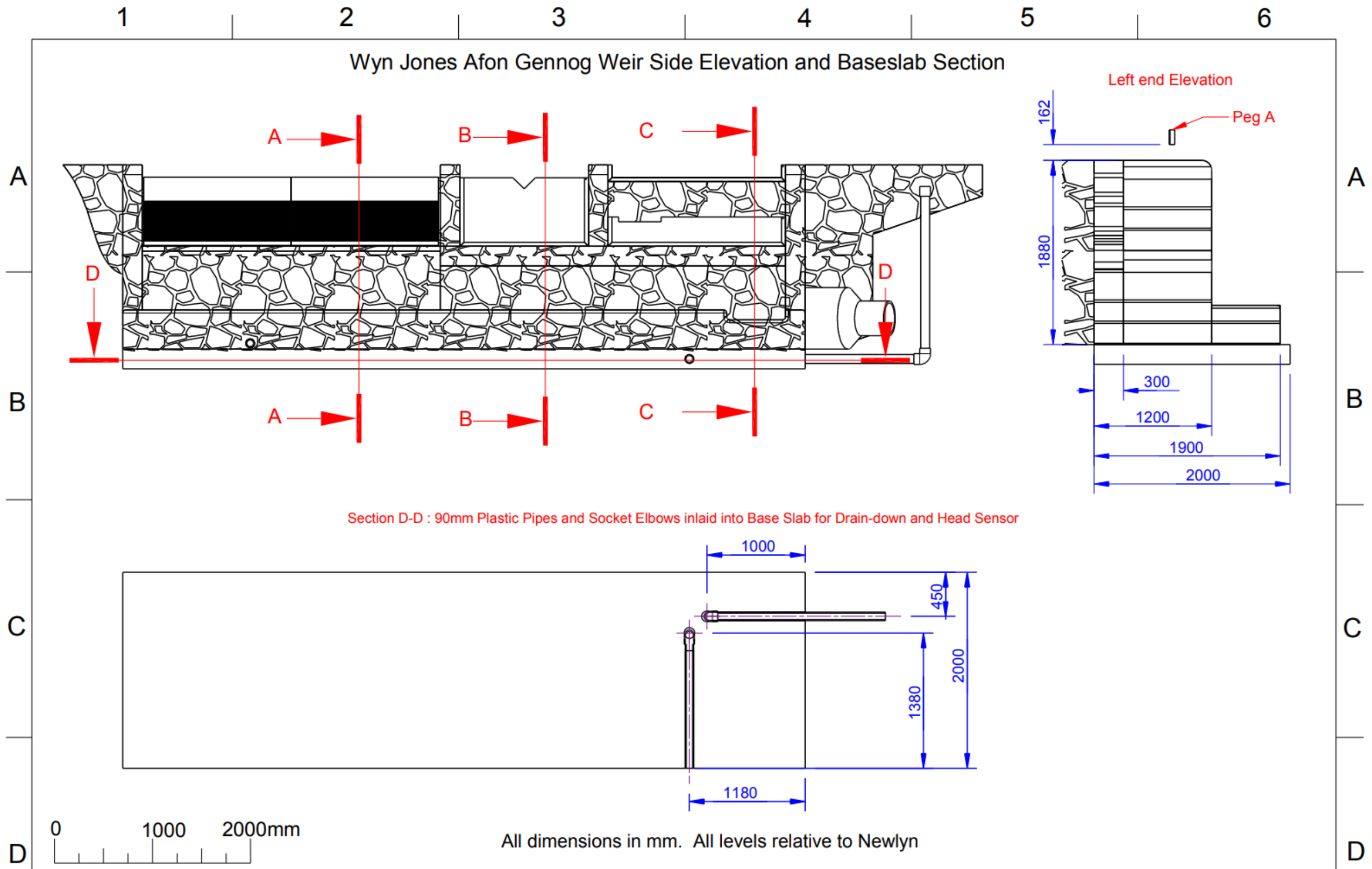
Client : **Wyn Jones**  
 Address : Bryniog-Isa, Melin Y Coed  
 Llanwrst, LL26 0TR  
 Drawn By : MJP

Date : 17/08/13  
 Scale : NTS  
 Drawing No : 130817MP05  
 Version : 3

Revision Details  
 v2 : Mortared Rock Construction  
 v3 : Take fixed at 50%



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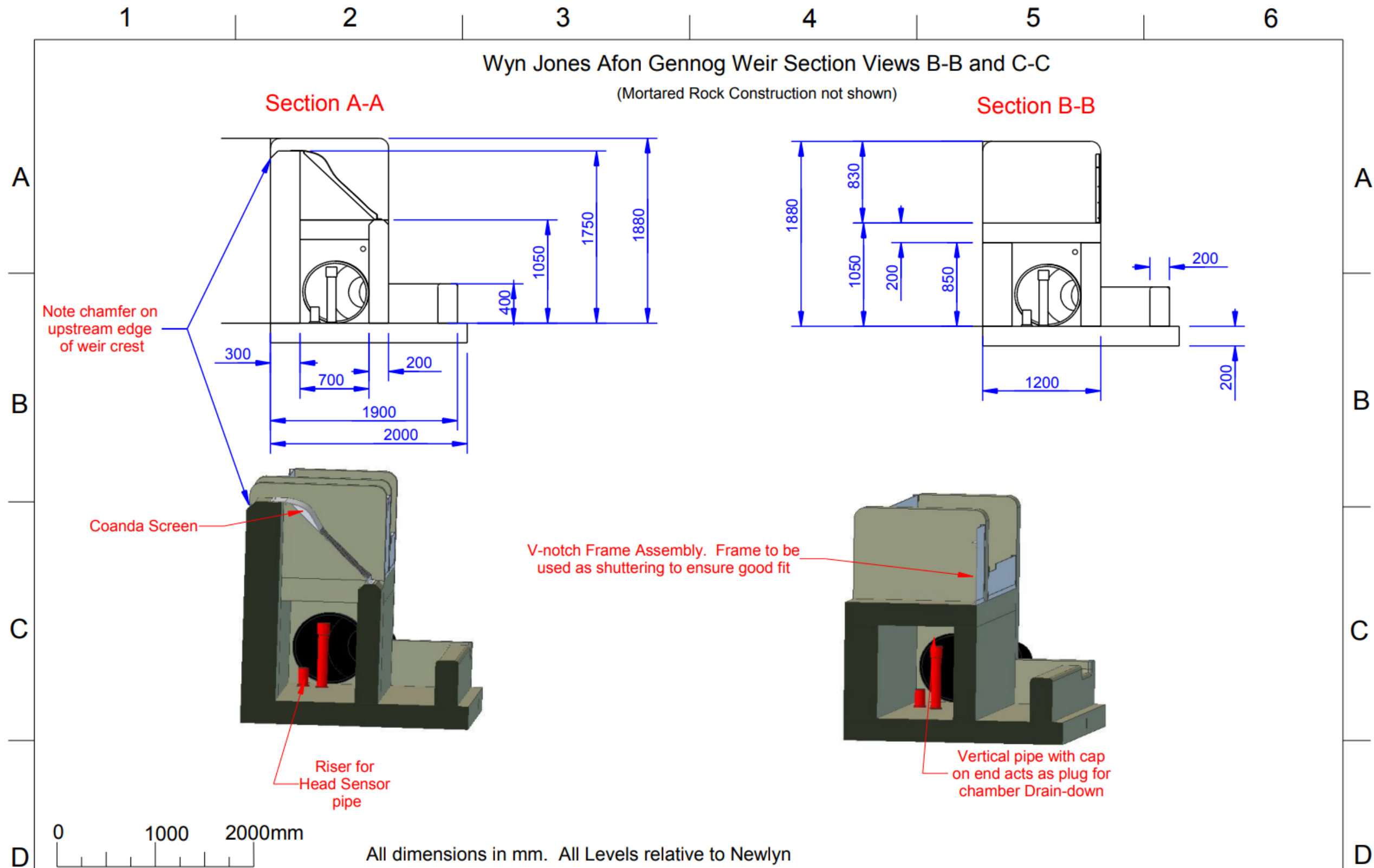
Client : **Wyn Jones**  
 Address : Bryniog-Isa, Melin Y Coed  
 Llanwrst, LL26 0TR  
 Drawn By : MJP

Date : 17/08/13  
 Scale : 1 : 50  
 Drawing No : 130817MP06  
 Version : 3

Revision Details  
 v2 : Mortared Rock Construction  
 v3 : Take fixed at 50%



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Client : **Wyn Jones**  
 Address : Bryniog-Isa, Melin Y Coed  
 Llanwrst, LL26 0TR  
 Drawn By : MJP

Date : 17/08/13  
 Scale : 1 : 50  
 Drawing No : 130817MP07  
 Version : 3

Revision Details  
 v2 : Note added on mortared rock construction not shown  
 v3 : Take fixed at 50%



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1 2 3 4 5 6

### Wyn Jones Afon Gennog Weir Section View C-C and Right End Elevation

(Mortared Rock Construction not shown)

#### Section C-C

#### Right End Elevation

A

B

C

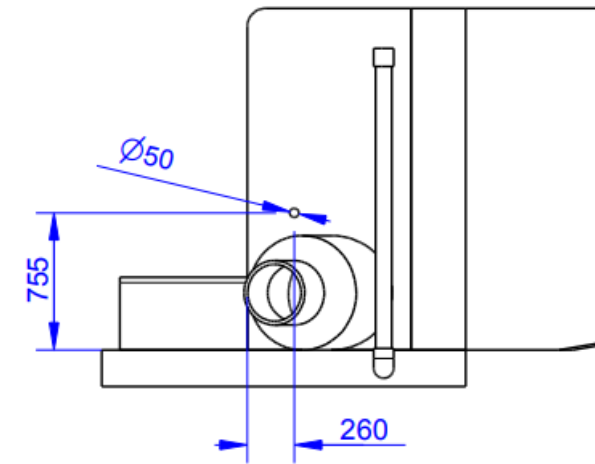
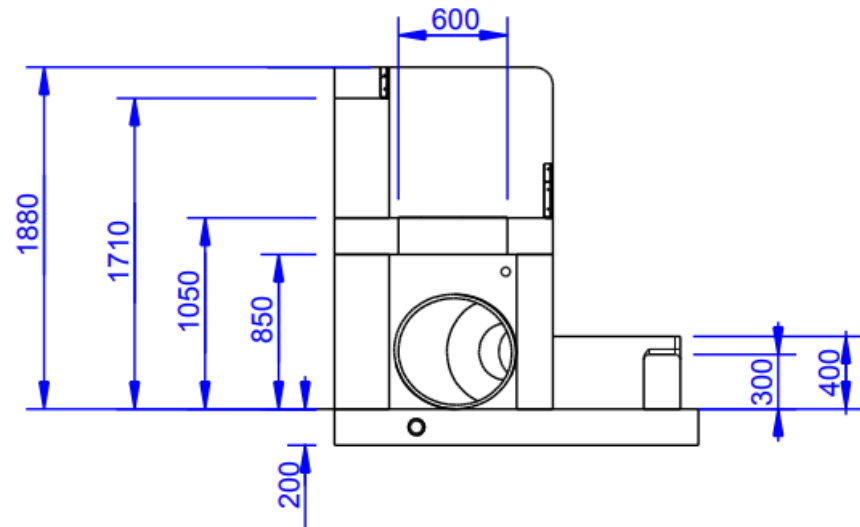
D

A

B

C

D



Frame of Pigging Plate to be used when shuttering to ensure good fit

Frame of Plate to be used when shuttering to ensure good fit

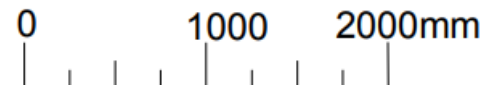
Frame of double manhole 900 x 600 to fit here

Reducer cut off flush with inner face of chamber

Outlet Notch from Fishpool

Breather Hole

Riser Pipe for Head Sensor



All dimensions in mm. All levels relative to Newlyn

Client : **Wyn Jones**  
 Address : Bryniog-Isa, Melin Y Coed  
 Llanwrst, LL26 0TR  
 Drawn By : MJP

Date : 17/08/13  
 Scale : 1 : 50  
 Drawing No : 130817MP08  
 Version : 3

Revision Details  
 v2 : Note added on mortared rock construction not shown  
 v3 : Take fixed at 50%



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1

2

3

6

**Would you like to find out more about us,  
or about your environment?**

**Then call us on  
0300 065 3000 (Mon-Fri 9-5)**

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enquiries@naturalresourceswales.gov.uk**

**or visit our website  
[www.naturalresourceswales.gov.uk](http://www.naturalresourceswales.gov.uk)**

**incident hotline 0300 065 3000 (24hrs)  
floodline 0345 988 1188**



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